REMARKS

Claims 1-13 are elected for prosecution in this case, with claims 1, 2, 5, and 8-13 being amended to more clearly define the invention. Support for the amendments to the claims can be found throughout the specification, and specifically in figure 1; page 7, lines 10-19; page 8, lines 5-15; page 11, lines 8-9; and page 12, lines 19-25. Thus, applicant respectfully submits that no new matter has been added by these amendments.

Rejection of Claim 1, 3, and 7 under 35 U.S.C. 102(e)

Claims 1, 3, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Rubin et al. (U.S. Patent No. 7,010,779).

Amended claim 1 describes a system for generating an executable procedure. The system includes a repository including spreadsheet representative data. The spreadsheet representative data includes stored data elements comprising individual data items determining characteristics of an executable procedure implementing a function exclusive of a function implemented by the spreadsheet. An executable application parses and processes the spreadsheet representative data to provide an executable procedure with characteristics determined by the individual data items implementing a function for use in processing data using the individual data items to provide processed data for output. A command processor initiates execution of the executable procedure in response to user command. For the reasons presented below, Rubin fails to disclose or suggest each feature claimed in amended claim 1 and therefore does not anticipate the present claimed arrangement.

The present claimed arrangement provides a system for providing a self-contained stand-alone executable procedure (.exe) of executable instructions generated from an executable application that uses spreadsheet data as input. The spreadsheet data is used to determine characteristics of the executable procedure which may include, for example, programming language structural features, the structure of sub-procedures in the executable procedure, and a process performed by a sub-procedure in the executable procedure. The invention has general applicability to any data transmission application in which it is desired to transmit data quickly from one entity to another in a manner that is neither labor intensive nor error prone (Specification, page 2, lines 14 – 22).

Unlike the present claimed invention, the system described Rubin relates to source code generator programming interfaces defined to facilitate the analysis of a body of spreadsheet data and the generation of software source code representative of the body of spreadsheet data. The system extracts data from a body of spreadsheet data and generates source code that performs the calculations and data transformations embodied in the spreadsheet data. The purpose of Rubin et al. is to allow a developer to create calculations and data transformations in a spreadsheet and convert it to source code in a fraction of the time that it would take to hand-code the same in a programming language (col. 2, line 61 – col. 3, line 16).

Rubin fails to disclose or suggest "an executable procedure implementing a function exclusive of a function implemented by said spreadsheet" as in the present claimed arrangement. In fact , Rubin describes a system contrary to the present claimed invention. Rubin merely describes replicating formulas in a spreadsheet in a selectable code syntax using KDParser software and processing the data in the spreadsheet using the replicated formulas (Rubin et al., col. 3, lines 7-12; col. 4, lines 40-46; col. 5, lines 61-66; col. 6, lines 32-35; col. 11, lines 59-64). In Rubin, the spreadsheet formulas may be both built-in and user-defined formulas, but both types of formulas are merely replicated by the KDParser and output into source code. This is wholly unlike the present claimed invention, which provides "an executable procedure implementing a function **exclusive of a function implemented by said spreadsheet**". The specification describes C++ source code generated by the present claimed invention which is not a replication of a spreadsheet formula, but rather is an executable procedure implementing a function exclusive of a function implemented by said spreadsheet. For example, the claimed arrangement advantageously generates C++ source line 445 , which is not a spreadsheet formula but is an executable procedure used to perform updates to the factors in the user's database 140 (specification, page 11, lines 1-18; *See also* figure 5 & page 12, lines 19-26 . Thus, the claimed arrangement operates in a fundamentally different manner using a different system architecture to accomplish the data update, for example. Rubin provides no enabling disclosure (or description of any kind) indicating how "an executable procedure implementing a function **exclusive of a function implemented by said spreadsheet**" may be performed, in contrast to the detailed description in the Application on page 11 and elsewhere.

Rubin merely parses spreadsheet data in order to replicate the formulas into a source code output. However, the replicated formulas are not equivalent to the "executable procedure with characteristics determined by said individual items **implementing a function for use in processing data using said individual data items**" as in claimed arrangement. Thus, Rubin describes a system that is wholly unlike the present claimed invention, which uses spreadsheet data to generate an executable procedure implementing a function exclusive of a function implemented by said spreadsheet. Rubin neither suggests nor describes providing "an executable procedure implementing a function exclusive of a function implemented by said spreadsheet," as recited in claim 1 of the present claimed invention. As Rubin fails to disclose each feature claimed in claim 1, Applicant respectfully submits that Rubin does not anticipate the present claimed arrangement. Consequently, withdrawal of the rejection of claim 1 is respectfully requested.

Claim 3 is dependent on claim 1, and therefore is allowable for the same reasons as claim 1. Thus, it is respectfully submitted that the rejection of claim 3 is satisfied and should be withdrawn.

Claim 7 is dependent on claim 1, and therefore is allowable for the same reasons as claim 1. Thus, it is respectfully submitted that the rejection of claim 7 is satisfied and should be withdrawn.

In view of the above remarks and amendments to claim 1, it is respectfully submitted that claim 1 of the present claimed invention is not anticipated by Rubin . Further, since claims 3 and 7 are dependent on claim 1, it is respectfully submitted that claims 3 and 7 are allowable for the same reasons as claim 1. Thus, withdrawal of this rejection is respectfully requested.

Rejection of Claims 2, 4-6, and 8-13 under 35 U.S.C. 103(a)

Claims 2, 4-6, and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubin et al. (U.S. Patent No. 7,010,779) in view of Sheffield (U.S. Patent No. 5,832,481).

Dependent claim 2 is considered patentable for the reasons presented above with respect to claim 1. Claim 2 is also considered patentable because Rubin, alone or in combination with Sheffield, fail to disclose or suggest that the "executable procedure processes data in a database using said data elements to provide updated data for storage in said database" and the "executable procedure processes data exclusively in said database and external to said spreadsheet".

As discussed above, Rubin fails to disclose the features of the claimed arrangement. Specifically, Rubin neither discloses nor suggests "an executable procedure implementing a function exclusive of a function implemented by said spreadsheet". Instead, Rubin describes the fundamentally different operation of replicating formulas in a spreadsheet, in a selectable code syntax, using KDParser software and processing the data in the spreadsheet using the replicated formulas (Rubin et al., col. 3, lines 7-12; col. 4, lines 40-46; col. 5, lines 61-66; col. 6, lines 32-35; col. 11, lines 59-64). The spreadsheet formulas may be both built-in and user-defined formulas, but both types of formulas are merely replicated by the KDParser and output into source code.

Sheffield, similarly to Rubin, fail to provide any enabling disclosure the features of the present claimed arrangement. While Sheffield describes an executable procedure, the procedure is not determined by individual data items that implement a function exclusive of the function of the spreadsheet as in the claimed arrangement. On the contrary, Sheffield performs the same procedure regardless of the source of the data and without regard to the individual data items (*see* Sheffield, col. 3, lines 34-36). While Sheffield itself contains an executable procedure, the program of Sheffield does not create a new executable procedure. This is wholly unlike the present claimed invention, which produces an executable procedure, the characteristics of which are determined by individual data items obtained from a spreadsheet. Therefore, Sheffield neither discloses nor describes "individual data items determining characteristics of an executable procedure implementing a function exclusive of a function implemented by said spreadsheet". Accordingly, a combination of Sheffield and Rubin similarly neither discloses nor suggests the claimed arrangement.

Additionally, the Examiner acknowledges on page 4 of the Office Action that Rubin does not explicitly teach that the "executable procedure processes data in a database using said data elements to provide updated data for data storage in said database" and cites column

3, lines 25 – 35 and column 8, lines 8 – 25 of Sheffield in support of the assertion that the claimed feature is disclosed. Applicant respectfully disagrees.

Sheffield describes a program providing an interface between a computer database manager and a client application program external to the interface object. Sheffield's program contains a GUI that allows an application developer to create customizable GUIs that interact with data selected from databases, spreadsheets, flat data files, or other data sources which may be represented in a column format (col. 2, lines 2 – 10; col. 3, lines 8 – 23). The program allows the developer to combine the selected data elements, which may span multiple files or database pages, into a single graphical window and allows the developer to define rules pertaining to how the end user may modify the data (col. 3, lines 37 – 51). The program also interacts with the data source files by updating the data source files with allowable changes to the data made by the end user in the customized GUI (col. 3, lines 37 – 51). The purpose of Sheffield is that a program developer may save time creating the customizable applications or GUIs without resorting to hand-coding of source code (col. 2, lines 27 – 32).

Sheffield, alone or in combination with Rubin, neither discloses nor suggests "executable procedure processes data in a database using said data elements to provide updated data for storage in said database." Sheffield describes an executable procedure that processes data in a database; however, Sheffield merely retrieves data from the database, and if the data is modified by the user in accordance with rules determined by the application developer, Sheffield may store the updated data in the database. Nevertheless, the database is only updated as a result of the data being manipulated by a user (*see* Sheffield, col. 3, lines 44-51). This is wholly unlike the present claimed invention, which creates an executable procedure that processes data in a database using data elements obtained from a spreadsheet. Therefore, Sheffield neither discloses nor describes that the "executable procedure processes data in a database using said data elements to provide updated data for storage in said database," as recited in claim 2 of the present claimed invention. Additionally, Sheffield (with Rubin) fail to disclose or suggest that "said executable procedure processes data exclusively in said database and external to said spreadsheet" as in the claimed arrangement. Instead, Sheffield and Rubin both modify data that is within the spreadsheet and which are related to the functions performed by the spreadsheet.

Thus, the systems of Rubin and Sheffield are fundamentally different from one another and a combination of the two systems does not lead to an operable system that produces predictable results. Rubin looks to the calculations and data transformations embodied in spreadsheet data in order to create source code that **replicates** the calculations and data transformations. Sheffield merely retrieves the data elements from a data source, which may include a spreadsheet, selected by a developer, so that it may be displayed alongside data elements from other sources allowing a user to view and manipulate the data from the separate sources inside a single graphical window. Rubin and Sheffield operate on different aspects of the spreadsheet data, and it is unclear how the combination of the systems would produce an operable system . Rubin is code generating system that generates code by replicating functions within a spreadsheet to produce code able to perform the function of the spreadsheet. A code generating system as described by Rubin, would need to be fundamentally altered (to the point of providing a new and different function) in order to incorporate the features described in Sheffield which retrieve source data elements and juxtapose the retrieved elements enabling a user to manipulate those data elements. To combine the Sheffield system with the system described by Rubin, would require significant experimentation to modify the architecture of Rubin.

Even if they could be combined to produce an operable system, a combination of Rubin and Sheffield would not produce the present claimed invention. As described above, Rubin and Sheffield neither disclose nor suggest "individual data items determining characteristics of an executable procedure implementing a function exclusive of a function implemented by said spreadsheet," or that the "executable procedure processes data in a database using said data elements to provide updated data for storage in said database, said executable procedure processes data exclusively in said database and external to said spreadsheet". Therefore, it follows that a combination of and Sheffield would also neither disclose nor describe these features. A combination of Rubin and Sheffield would describe a system for extracting data from a spreadsheet to generate source code that replicates the calculations and data transformations embodied in the **spreadsheet** data. This is wholly unlike the present claimed invention, which creates an executable procedure that processes data in a database using data elements obtained from spreadsheet representative data. The combined system of Rubin and Sheffield, like the separate systems, would neither disclose nor suggest "individual data items determining characteristics of an executable procedure

implementing a function exclusive of a function implemented by said spreadsheet," as recited in claim 1, or that the "executable procedure processes data in a database using said data elements to provide updated data for storage in said database," as recited in claim 2. Consequently, withdrawal of the rejection of claim 2 is respectfully requested.

Claim 4 is dependent on claim 1 and therefore is allowable for the same reasons discussed above regarding claim 1. Therefore, it is respectfully submitted that the rejection of claim 4 is satisfied and should be withdrawn.

Claim 5 is dependent on claim 4 and therefore is allowable for the same reasons as claim 4. Therefore, it is respectfully submitted that the rejection of claim 5 is satisfied and should be withdrawn.

Claim 6 is dependent on claim 1 and therefore is allowable for the same reasons discussed above regarding claim 1. Therefore, it is respectfully submitted that the rejection of claim 6 is satisfied and should be withdrawn.

Independent claim 8 is considered patentable for the reasons presented above with respect to claims 1 and 2. Claim 8 is also considered patentable because Rubin (with Sheffield) fail to disclose or suggest "an executable procedure implementing a computation formula exclusive of a computation formula implemented by said spreadsheet." While Sheffield describes an executable procedure, the procedure is not determined by individual data items. On the contrary, Sheffield performs the same procedure regardless of the source of the data and without regard to the individual data items (*see* Sheffield, col. 3, lines 34-36). While Sheffield itself contains an executable procedure, the program of Sheffield does not create a new executable procedure. This is wholly unlike the present claimed invention, which produces an executable procedure, the characteristics of which are determined by individual data items obtained from a spreadsheet. Therefore, Sheffield neither discloses nor describes "individual data items determining characteristics of an executable procedure implementing a computation formula exclusive of a computation formula implemented by said spreadsheet," as recited in claim 8 of the present claimed invention.

Thus, the systems of Rubin and Sheffield are fundamentally different from one another that a combination of the two systems would not lead to an operable system that produces predictable results. Rubin replicates calculations and data transformations embodied in a spreadsheet and creates source code that replicates the calculations and data transformations. Sheffield merely retrieves the data elements from a data source, which may include a spreadsheet, selected by a developer, so that it may be displayed alongside data elements from other sources allowing a user to view and manipulate the data from the separate sources inside a single graphical window. Rubin and Sheffield operate on different aspects of the spreadsheet data, and it is unclear how the combination of the systems would produce an operable system. Rubin is code generating system that generates code by replicating functions within a spreadsheet to produce code able to perform the function of the spreadsheet. A code generating system as described by Rubin, would need to be fundamentally altered in order to incorporate the features described in Sheffield which retrieve source data elements and juxtapose the retrieved elements enabling a user to manipulate those data elements. To combine the Sheffield system with the system described by Rubin, would require significant experimentation to modify the architecture of Rubin.

Even if Sheffield and Rubin could be combined to produce an operable system, the resulting system would not be equivalent in structure or function to the present claimed invention as claimed in claim 8. Specifically, a system resulting from a combination of Rubin and Sheffield neither discloses nor suggests "individual data items determining characteristics of an executable procedure implementing a computation formula exclusive of a computation formula implemented by said spreadsheet" as recited in the claimed arrangement. Unlike the claimed arrangement, a combination of Rubin and Sheffield comprises a system including the features of extracting data from a body of spreadsheet data to generate source code that replicates the calculations and data transformations embodied in the spreadsheet data. This is wholly unlike the present claimed invention, which creates an executable procedure using data elements obtained from spreadsheet representative data to implement a computation formula exclusive of a computation formula implemented by the spreadsheet. The combined system of Rubin et al and Sheffield, like the separate systems, neither suggests nor describes "individual data items determining characteristics of an executable procedure implementing a computation formula exclusive of a computation formula implemented by said spreadsheet," as recited in claim 8. Consequently, withdrawal of the rejection of claim 8 is respectfully requested.

Claim 9 is dependent on claim 8 and therefore is deemed allowable for the same reasons as claim 8. Claim 9 is also considered patentable because Sheffield (with Rubin) fails to disclose or suggest that the "executable procedure re-computes a value of the data item using the updated computation formula and updates the data item in the database with the re-computed value and the executable procedure processes data external to data in the spreadsheet." On page 8 of the Office Action, the Examiner asserts that "Rubin further teaches wherein said execution of said executable procedure re-computes a value of said data item using said updated computation formula and updates said data item in said database with said re-computed value." Based on the previous citations on page 4 of the Office Action to the same matter in Sheffield, the Applicant believes that the Examiner intended to cite to Sheffield and not to Rubin to support the Examiner's assertion and thus, Applicants remarks will follow accordingly.

Sheffield describes an executable procedure that processes data in a database; however, Sheffield merely retrieves data from the database, and if the data is modified by the user in accordance with rules determined by the application developer, Sheffield may store the updated data in the database. Nevertheless, the database is only updated as a result of the data being manipulated by a user (*see* Sheffield, col. 3, lines 44-51). This is wholly unlike the present claimed invention, which creates an executable procedure that re-computes data in a database using data elements obtained from spreadsheet representative data. Sheffield (with Rubin) does not provide an "executable procedure implementing a computation formula exclusive of a computation formula implemented by said spreadsheet". Instead, Sheffield (with Rubin) merely provides an executable procedure that mirrors the functionality of the spreadsheet by processing data that is within the spreadsheet. This is in direct contrast to the claimed system that include an executable procedure in a spreadsheet that has functions "exclusive of" the function implemented by the spreadsheet that is used "for updating a data item in a database" by replacing a data item "to provide an updated computation formula exclusive of a computation formula implemented by said spreadsheet". Moreover, the claimed system, unlike Sheffield (with Rubin) which process data within the spreadsheet that correspond to the function of the spreadsheet, "processes data **external to data in said spreadsheet"** Therefore, Sheffield neither discloses nor describes that the "executable procedure re-computes a value of said data item using said updated computation formula and updates said data item in said database with said re-computed value and said executable

procedure processes data external to data in said spreadsheet and said executable procedure processes data external to data in said spreadsheet," as recited in claim 9 of the present claimed invention.

Independent claims 10 – 13 are considered patentable for the reasons presented above with respect to claims 1, 2, 8 and 9. Consequently, withdrawal of the rejection of claims 10 - 13 is respectfully requested.

In view of the above remarks and amendments to claims 2 and 8-13, it is respectfully submitted that claims 2 and 8-13 of the present claimed invention are patentable over Rubin in view of Sheffield. Further, since claims 4 and 6 are dependent on claim 1, it is respectfully submitted that claims 4 and 6 are patentable for the same reasons discussed above regarding claim 1. Additionally, since claim 5 is dependent on claim 4, it is respectfully submitted that claim 5 is patentable for the same reasons as claim 4. Thus, it is respectfully requested that this rejection be withdrawn.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No additional fee is believed due. However, if an additional fee is due, please charge the additional fee to Deposit Account 19-2179.

Respectfully Submitted,

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